

Claims

We claim:

1. A method for replicating message status changes across messaging systems,

comprising:

changing a status of a message for a user on a first messaging system;

entering the status change into a log associated with the user on the first messaging system;

communicating the status change to a second messaging system, wherein the second messaging system is a replica of the first messaging system; and

determining, on the second messaging system, if the status change is more recent than any other status changes of the message within a log associated with the user on the second messaging system.

2. The method of claim 1, further comprising entering the status change into the log associated with the user on the second messaging system if the status change is more recent than the any other status changes for the message.

3. The method of claim 1, further comprising discarding the status change from the second messaging system if the status change is not more recent than the any other status changes for the message.

4. The method of claim 1, wherein the communicating step comprises communicating at least a portion of the log associated with the user on the first messaging system to the second messaging system.

5. The method of claim 4, wherein the portion comprises status changes entered into the log associated with the user on the first messaging system since a previous replication.

6. The method of claim 1, further comprising maintaining an unread table on the first messaging system, wherein the unread table identifies messages for the user that are unread.

7. The method of claim 6, wherein the unread table is updated as the messages are read.

8. The method of claim 1, wherein the message is an electronic message.

9. The method of claim 1, wherein the entering step comprises entering the status change in the log associated with the user on the first messaging system with a corresponding clock time of the first messaging system, and wherein the communicating step comprises communicating the status change and the clock time of the first messaging system to the second messaging system.

10. The method of claim 9, further comprising entering the status change in the log associated with the user on the second messaging system with the clock time of the first messaging system and a clock time of the second messaging system, if the status change is more recent than any other status changes for the message.

11. A method for replicating message status changes across messaging systems, comprising:

providing a first messaging system having a first set of logs corresponding to a set of users, wherein the first set of logs includes entries reflecting status changes for electronic messages received by the set of users;

communicating the first set of logs to a second messaging system having a second set of logs corresponding to the set of users; and

determining, on the second messaging system, if the entries within the first set of logs are more recent than existing entries within the second set of logs.

12. The method of claim 11, further comprising entering, into the second set of logs, all entries within the first set of logs that are more recent than the existing entries.

13. The method of claim 11, further comprising discarding, from the second messaging system, any entries within the first set of logs that are not more recent than the existing entries.

14. The method of claim 11, wherein the communicating step comprises communicating the entries of the first set of logs that reflect status changes that occurred since a previous replication.

15. The method of claim 11, further comprising maintaining unread tables on the first messaging system and the second messaging system, wherein the unread table identifies electronic messages for the set of user that are unread, and wherein the unread table is updated as the electronic messages are read.

16. A system for replicating message status changes across messaging systems, comprising:

a log entry system for entering a status change of a message for a user into a log associated with the user on a first messaging system; and

a replication system for communicating the status change to a second messaging system, wherein the second messaging system includes a precedence system for determining whether the status change for the message is more recent than any other status changes for the message previously entered into a log associated with the user on the second messaging system.

17. The system of claim 16, wherein a log entry system on the second messaging system enters the status change for the message into the log associated with the user on the second messaging system if the status change is more recent than the any other status changes for the message.

18. The system of claim 16, wherein the status change is discarded from the second messaging system if the status change is not more recent than the any other status changes for the message.

19. The system of claim 16, further comprising a table maintenance system for maintaining an unread table on the first messaging system that identifies any messages for the user that are unread.

20. The system of claim 16, further comprising a log purging system for purging the log on the first messaging system of any status changes that are older than a predetermined time limit.

21. The system of claim 16, wherein the replication system communicates the status change with a clock time of the first messaging system to the second messaging system.

22. The system of claim 21, wherein the status change is entered into the log associated with the user on the second messaging system with the clock time of the first messaging system and a clock time of the second messaging system, if the status change is more recent than any other status changes for the message.

23. A system for replicating message status changes across messaging systems, comprising:

a log entry system for entering status changes of messages for a user into a log associated with the user on a first messaging system;

a replication system for communicating the status changes a second messaging system;

a precedence system for determining whether a status change for a particular message received from the second messaging system is more recent than any status changes for the particular message previously entered into the log; and

a table maintenance system for maintaining an unread table on the first messaging system that identifies any messages for the user that are unread.

24. The system of claim 23, further comprising a log purging system for purging the log on the first messaging system of any status changes that are older than a predetermined time limit.

25. The system of claim 23, wherein the log entry system enters the status change for the particular message into the log if the status change is more recent than the any other status changes for the particular message.

26. The system of claim 23, wherein the status change for the particular is discarded from the first messaging system if the status change is not more recent than the any other status changes for the particular message.

27. The system of claim 23, wherein the replication system communicates the status changes with a corresponding clock time of the first messaging system to the second messaging system.

28. The system of claim 23, wherein the status changes are entered into a log associated with the user on the second messaging system with the clock time of the first messaging system and a clock time of the second messaging system.

29. A program product stored on a recordable medium for replicating message status changes across messaging systems, which when executed comprises:

program code for entering a status change of a message for a user into a log associated with the user on a first messaging system; and

program code for communicating the status change to a second messaging system, wherein the second messaging system includes program code for determining whether the status change for the message is more recent than any other status changes for the message previously entered into a log associated with the user on the second messaging system.

30. The program product of claim 29, wherein program code for entering on the second messaging system enters the status change for the message into the log associated with the user on the second messaging system if the status change is more recent than the any other status changes for the message.

31. The program product of claim 29, wherein the status change is discarded from the second messaging system if the status change is not more recent than the any other status changes for the message.

32. The program product of claim 29, further comprising program code for maintaining an unread table on the first messaging system that identifies any messages for the user that are unread.

33. The program product of claim 29, further comprising program code for purging the log on the first messaging system of any status changes that are older than a predetermined time limit.

34. The program product of claim 29, wherein the program code for communicating communicates the status change with a clock time of the first messaging system to the second messaging system.

35. The program product of claim 34, wherein the status change is entered into the log associated with the user on the second messaging system with the clock time of the first messaging system and a clock time of the second messaging system, if the status change is more recent than any other status changes for the message.

36. A method for maintaining log chronology for message status changes replicated across messaging systems, comprising:

- changing a status of a message for a user on a first messaging system;
- entering the status change into a log associated with the user on the first messaging system, wherein the status change is entered into the log along with a clock time of the first messaging system;
- communicating the status change and the clock time of the first messaging system to a second messaging system; and
- entering the status change into a log associated with the user on the second messaging system, wherein the status change is entered into the log associated with the user on the second messaging system with the clock time of the first messaging system and a clock time of the second messaging system.

37. The method of claim 36, wherein the status change is entered into an entry at an end of the log associated with the user on the first messaging system.

38. The method of claim 36, further comprising periodically purging the log associated with the user on the first messaging system.

39. The method of claim 36, further comprising determining whether the clock time of the first messaging system is different than a clock time of the second messaging system, after the communicating step.

40. The method of claim 36, wherein the message is an electronic mail message

41. A system for maintaining log chronology for message status changes replicated across messaging systems, comprising:

a log entry system for entering a status change of a message for a user into a log associated with the user on a first messaging system, wherein the status change is entered into the log along with a clock time of the first messaging system; and

a replication system for communicating the status change with the clock time of the first messaging system to a second messaging system, wherein the status change is entered into a log associated with the user on the second messaging system along with the clock time of the first messaging system and a clock time of the second messaging system.

42. The system of claim 41, further comprising a log purging system for periodically purging the log associated with the user on the first messaging system.

43. The system of claim 41, further comprising a table maintenance system for maintaining an unread table on the first messaging system that identifies any messages for the user that are unread.

44. The system of claim 41, wherein the log entry system enters the status change at an end of the log associated with the user on the first messaging system.

45. The system of claim 41, further comprising a precedence system for determining whether status changes of messages for the user received on the first messaging system from the second messaging system are more recent than any other status changes of the messages for the user previously entered into the log associated with the user on the first messaging system.

46. The system of claim 41, wherein the message is an electronic mail message.

47. A program product stored on a recordable medium for maintaining log chronology for message status changes replicated across messaging systems, which when executed comprises:

program code for entering a status change of a message for a user into a log associated with the user on a first messaging system, wherein the status change is entered into the log along with a clock time of the first messaging system; and

program code for communicating the status change with the clock time of the first messaging system to a second messaging system, wherein the status change is entered into a log associated with the user on the second messaging system along with the clock time of the first messaging system and a clock time of the second messaging system.

48. The program product of claim 47, further comprising program code for periodically purging the log associated with the user on the first messaging system.

49. The program product of claim 47, further comprising program code for maintaining an unread table on the first messaging system that identifies any messages for the user that are unread.

50. The program product of claim 47, wherein the program code for entering enters the status change at an end of the log associated with the user on the first messaging system.

51. The program product of claim 47, further comprising program code for determining whether status changes of messages for the user received on the first messaging system from the second messaging system are more recent than any other status changes of the messages for the user previously entered into the log associated with the user on the first messaging system.

52. The program product of claim 47, wherein the message is an electronic mail message.